

Claims

1. A sprayer system with a tank containing a spray fluid, a pump for generating a spray pressure, a feed line, at least one spray nozzle system, a recirculation line and vacuum structure connected to the recirculation line and generating a partial vacuum in recirculation line, a throttle device located in the feed line, and a control valve located between spray nozzle system and the recirculation line, the control valve having a closed position wherein the spray pressure generated by the pump is applied to spray nozzle system, and the control valve having an open position wherein the partial vacuum generated in the recirculation line is applied to spray nozzle system.

2. The sprayer system according to Claim 1, wherein the vacuum structure comprises an injector.

3. The sprayer system according to Claim 2, including an injector line connected between the feed line and the injector and providing pressurized fluid to the injector to generate the partial vacuum.

4. The sprayer system according Claim 1, wherein the throttle device (36) has an outlet with an outlet cross section that is greater than or equal to an outlet cross section of the spray nozzle system.

5. The sprayer system according to Claim 1 wherein said at least one spray nozzle system includes two or more spray nozzle systems connected in parallel to the feed line and the recirculation line.

6. The sprayer system according to Claim 5, wherein each spray nozzle system includes a throttle device and a control valve for selectively applying a spray pressure or partial vacuum to the spray nozzle systems independently of each other.

7. The sprayer system according to Claim 3 including pressure regulator structure located in the feed line, wherein the pressure in the injector line can be varied relative to the pressure in the feed line.

8. The sprayer system according Claim 1 wherein the throttle device comprises a constriction in the feed line.

9. The sprayer system according to Claim 1 wherein the throttle device comprises an orifice located in the feed line.

10. The sprayer system according to Claim 1 wherein the throttle device comprises a variable orifice for adapting the throttle device to a change in the spray nozzle system.